

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

CHROMAR SYSTEMS, INC.  
d/b/a CMS TECHNOLOGIES, INC./  
a Michigan Corporation,

Plaintiff,

v.

FOUNDARY NETWORKS, INC., a California  
Corporation,

Defendant.

Civil Action No. 06-13936  
Honorable Avern Cohn

**POST MAY 4, 2012 EVIDENTIARY HEARING  
REPORT AND RECOMMENDATION OF EXPERT ADVISOR TO THE  
COURT, KIM A. WINICK, REGARDING FOUNDRY NETWORKS, INC.'S  
MOTIONS [DOC. 143] FOR SUMMARY JUDGMENT OF INVALIDITY OF  
CLAIMS 14 AND 17 OF U.S. PATENT NO. 5,406,260**

## I. Background Information

¶1. The instant case involves a motion by Foundry Networks, Inc. for summary judgment of invalidity of paradigm claim 17 of Chrimar Systems, Inc. U.S. Patent No. 5,406,260 (the ‘260 patent) filed on 17 September 2010.<sup>FN1</sup> [Doc. 143] Claim 17 is a dependent claim of method claim 14, and hence the validity of claim 14 is also at issue.

FN1: A *Markman* order was issued on July 30, 2008 for the instant case. [Doc. 69] The Court also issued an order collaterally estopping Chrimar from relitigating the findings decided in an earlier related case, *Chrimar Systems Inc. v. Cisco Systems Inc.* (“Cisco”), 318 F. Supp. 2d 476 argued before the same Court hearing this instant case. A court-appointed Special Master, Professor Mark A. Lemley, issued a report and recommendation on Foundry’s motion for summary judgment on May 2, 2011. [Doc. 210] The report recommended that Foundry’s motion for summary judgment of invalidity of claims 14 and 17 of the ‘260 patent be granted. Both Foundry and Chrimar objected to many of the report’s findings and recommendations. A hearing on these objections was held on October 28, 2011. Following this hearing, I was appointed by the Court as an expert advisor to research, analyze and draft a report and recommendation regarding the validity of claims 14 and 17 of the ‘260 patent. I issued several draft versions of this report, the most recent version (#3), “Report and Recommendation of Expert Advisor to the Court Regarding Foundry Networks, Inc.’s Motions for Summary Judgment of Invalidity,” Draft Version 3, is dated March 18, 2012. A second (evidentiary) hearing on Foundry’s motion for summary judgment, which I attended, was held on May 4, 2012. In June of 2012 both Foundry and Chrimar submitted post-hearing, second supplemental, statements/counterstatements of material facts related to the summary motion [Docs. 229 & 233]

Based on the entire record of information now before this Court, I find that there are no issues of material fact in dispute, and thus by matter of law a summary judgment can be issued. Furthermore, I respectively recommend that the Court grant Foundry’s motion for summary judgment that claim 14 of the ‘260 patent is invalid by anticipation of the prior art disclosed in the Green Book. In view of the prior art disclosed in the Green Book and the fact that 10BaseT wiring was well known at the time the ‘260 patent was filed, I also respectively recommend that the Court find claim 17 of the ‘260 patent to be invalid by obviousness.

¶2. The ‘260 patent covers a “Network Security System for Detecting Removal of Electronic Equipment.” [‘260 patent]. The central idea of this patent is to apply a low DC voltage across a pair of data communication wires that connect a central computer hub or concentrator to peripheral computer equipment (often referred to as data communication equipment (DTE)). The impressed DC voltage causes a DC current to flow from the concentrator, along the data communication wires, through the DTE, returning to the concentrator along the data communication wires. Thus a DC current loop is formed that passes through the DTE. Isolation transformers are used in the DTE

(as well as a low DC current), so that the DC current does not interfere with the data communication signals carried along the same data communication wires. By monitoring the voltage drop across resistor  $R_2$  (see Fig. 2, '260 patent) located in the current loop in the concentrator, it can be established whether or not the concentrator is electrically connected to the DTE. A physical disconnection of the data communication cable from the DTE (assuming that the cable wires are not broken) will cause the flow of current to cease, and the resulting voltage drop across resistor  $R_2$  will become 0.<sup>FN2</sup>

FN2: In its briefs, Chrimar has gone to great pains to distinguish between a *physical disconnection* and a *broken wire*. Consistent with Chrimar's approach, we take a physical disconnection to mean that the connector on the data communication cable is not plugged into the DTE. Clearly it is possible for the cable to have broken wires while remaining physically connected to the DTE. Either broken wires or physical disconnection, however, will *electrically disconnect* the DTE from the concentrator.

¶3. In the preferred embodiment of the '260 patent, it is implicitly assumed that (1) the data communication wires are unbroken,<sup>FN3</sup> (2) the data communication wires are properly connected to both the concentrator and the DTE, and (3) a continuous DC current loop has been established using the data communication wires. Under such conditions, removal of the data communication cable from the DTE can be detected at the concentrator as a cessation of the DC current flow (equivalently a change in the voltage across resistor  $R_2$  to 0). Thus the proposed invention could be used, as suggested in the patent, as a security system for detecting the "unauthorized" removal of DTE. The Court has ruled in *Chrimar v. Cisco*, 318 F. Supp. 2d 476, that the proposed anti-theft application of the patent, i.e., detecting "unauthorized" equipment removal, is non-limiting.

FN3: The invention disclosed in the '260 patent cannot be used to detect the disconnection of the data communication cable from the DTE (i.e., the unplugging of this cable from the DTE) if the cable contains broken wires, because under this situation the voltage drop across resistor  $R_2$  (Fig. 2, '260 patent) will always be 0 whether or not the data communication cable is physically connected to the DTE. Neither the claims nor specification of the '260 patent explicitly states or implies that the proposed invention is intended to work when the data communication cable contains broken wires.

¶4. The '260 patent does not disclose a means for detecting a *change* in the DC current, but simply a means to determine whether or not a DC current in the current loop is present at any given time. ['260 patent col. 4: 61-68 and col. 5: 1-16], [Figures 1 and 2 of the '260 patent] Additional electronics and/or software not directly disclosed in the '260 patent (but easily developed by one skilled in the art) would be required to detect a *change*, rather than simply the presence or absence, of the DC current. Once a continuous current is flowing in the current loop, the invention disclosed in the '260 patent cannot distinguish between a subsequent physical separation of the cable from the DTE and a break in the wiring inside the cable.

¶5. In its motion to have the Court invalidate claim 14, Foundry proffers three pieces of prior art, the Green Book (“An Interoperable Solution for FDDI Signaling over Shielded Twisted Pair”) [Doc. 143-5], the AMD Application Note (“FDDI on Copper with AMD PHY Components”) [Doc. 143-6], and IBM’s U.S. Patent No. 4, 551, 671 (the ‘671 patent). Previously, the Court ruled in *Chrimar v. Cisco*, 318 F. Supp. 2d 476 that claim 1 of the ‘260 patent was anticipated by both the Green Book and the AMD Notes, separately. These prior art references are referred to as the “FDDI Publications.” The Court did not render a decision as to whether the ‘671 patent was also prior art that anticipates claim 1 of the ‘260 patent.

¶6. Chrimar is barred, by collateral estoppel, from relitigating the issues decided in *Chrimar v. Cisco*, in particular the teachings of the cable detect circuit shown in Fig. A-2 of the Green Book. [Docs. 127 and 139] The Court’s order for application of collateral estoppel contains 38 specifically enumerated findings of fact. [Doc. 139]

¶7. For the FDDI network, concentrators are connected to other concentrators or DTE via fiber optic cables. The FDDI Publications describe an interoperable solution that allows existing FDDI equipment to be easily modified to operate over copper wire instead of optical fibers. Specifically, the FDDI Publications propose an interoperable solution to replace the optical transceivers in FDDI equipment with transceivers designed to operate with IBM Type 1 and Type 2 shielded twisted pair (STP) wiring. The proposed interoperable solution covers four main parts – (1) transmitter, (2) receiver, (3) link detection circuit (performing signal detect and cable detect functions) and (4) MIC (medium interface connector) and cable plant. [Green Book at 4]

¶8. Fig. A-2 of the Green Book discloses a cable detect circuit. Assuming that (1) the data communication lines are unbroken and (2) the data communication lines are properly connected to both the concentrator and the DTE, the circuit shown in Fig. A-2 of the Green Book anticipates each and every element of claim 1 of the ‘260 patent, thus invalidating claim 1. *Chrimar v. Cisco*, 318 F. Supp. 2d 476 Furthermore, Chrimar is collaterally estopped from relitigating the *Cisco* findings, in particular the teachings of the cable detect circuit shown in Fig. A-2 of the Green Book. [Doc. 127 and Doc. 139]

¶9. The interoperable solution proposed in the Green Book describes the use of either loop-back (also called wrap-back) connectors or 9-pin D connectors for the electrical cabling. If wrap-back connectors are used together with the cable detect circuit shown in Fig. A-2 of the Green Book, then three cable/connection conditions may be detected at the concentrator: (1) a 0 volt drop across the 650  $\Omega$  resistor (see Fig. A-2), denoting broken wires in the cable, (2) 2.5 volt drop across the 650  $\Omega$  resistor, denoting that the cable contains no broken wires and it is physically connected to the DTE (or a second concentrator), and (3) 4.3 volt drop across the 650  $\Omega$  resistor, denoting that the cable does not contain any broken wires and it is not physically connected to the DTE (or a second concentrator). If wrap-back cables are not used together with the cable detect circuit shown in Fig. A-2 of the Green Book,<sup>FN4</sup> then only two cable/connection conditions can be detected at the concentrator, (1) a 0 volt drop across the 650  $\Omega$  resistor (see Fig. A-2)

denotes either broken wires in the cable or a physical separation of the cable from the DTE (or second concentrator) and (2) 2.5 volt drop across the 650  $\Omega$  resistor denoting that the cable contains no broken wires and it is physically connected to the DTE (or a second concentrator).

FN4: Chrimar is collaterally estopped from arguing that the Green Book requires the use of wrap-back connectors. See Finding 31 Doc. 139-1.

Chrimar has repeatedly argued that the interoperable solution described in the Green Book would use wrap-back connectors and that the intended purpose of the cable detect circuit shown in Fig. A-2 of the Green Book would be to distinguish between a wrap-back condition (4.3 volts across 650  $\Omega$  resistor shown in Fig. A-2), broken cable wires (0 volts across 650  $\Omega$  resistor shown in Fig. A-2), and no broken cable wires (2.5 volts across 650  $\Omega$  resistor shown in Fig. A-2). This intended purpose, of course, differs from that described by claim 14 of the '260 patent, where the intended application is to detect the removal of the data communication cable from the DTE. Furthermore, it is implicitly assumed in the '260 patent that the wires in the cable are unbroken. Thus Chrimar argues that the Green Book does not anticipate the '260 patent. This last conclusion, however, is without merit, even if the prior assumptions are true. For a finding of invalidity of claim 14 of the '260 patent by anticipation (Green book prior art), it is unnecessary for the intended, preferred, application of the cable detect circuit (Green Book Fig. A-2) to be the same application described by claim 14 of the '260 patent. Rather, one must consider the teachings of the Green Book (in the instant case, specifically the cable detect circuit shown in Fig. A-2 of the Green Book) and determine whether these teachings contain each and every limitation of claim 14 of the '260 patent. Furthermore, one must also ascertain that the teachings of the Green Book do not teach away from the proposed '260 invention.

¶10. Both Chrimar and Foundry essentially agree on the level of ordinary skill in the art. Specifically Foundry states [Doc. 233 at 5]:

- (a) One skilled in the art at the time of the invention would have a basic knowledge of engineering.
- (b) One skilled in the art at the time of the invention would have been familiar with computer networks, including IEEE 802.3 and 802.5 standards and 10BaseT wiring.

while Chrimar states [Doc. 233 at 5]:

- (c) One skilled in the art is a person familiar with basic electrical and physical principles and is familiar with existing network/computing environments and supporting standards.

If anything Chrimar suggests a slightly higher level of ordinary skill in the art, since it stipulates knowledge of "basic electrical and physical principles" as opposed to "basic knowledge in engineering." Furthermore Chrimar's phrase "network/computing environments and supporting standards" most certainly includes Ethernet "IEEE 802.3" and Token Ring "IEEE 802.5" environments, since both were commonly in use at the time the invention was filed.

¶11. The statements appearing in paragraphs 1-10 above are indisputable material facts that follow from the record, and no reasonable trial jury (or judge in a bench trial) could find otherwise.

¶12. The litigants have submitted to the Court a large number of briefs, exhibits and expert reports to sort through. Furthermore, the moving party, Foundry, has introduced a variety and a changing set of arguments (not all of which are valid) in support of its position. See section IV of this report. Chrimar, on the other hand, has failed to draw a clear distinction between law and fact in attempting to rebut some of Foundry's arguments. See section V of this report.

¶13. A careful reading of the litigant's submissions to this Court indicates that there are no genuine material factual issues in dispute that would prevent this Court from issuing a summary judgment as a matter of law. Furthermore, the facts clearly support a ruling that claims 14 and 17 of the '260 patent are invalid. Chrimar in its submissions to this Court is essentially disputing matters of law rather than matters of fact. The matters of law that Chrimar disputes involve the claim construction of claim 14,<sup>FN5</sup> the application of collateral estoppel arising from the *Cisco* decision as it relates to claim 14,<sup>FN6</sup> and the legal requirements for a finding of obviousness with respect to claim 17.<sup>FN7</sup>

FN5: Chrimar asserts that for each DTE there must be a single current loop and a corresponding single unique pair of data communication wires associated with cable detect circuit. Such an assertion, if upheld, would raise a valid issue as to whether the cable detect circuit shown in Fig. A-2 of the Green Book anticipates claim 14 of the '260 invention. Chrimar, however, is collaterally estopped from raising this issue. See Finding 18 Doc. 139-1. Chrimar's assertion also directly contradicts the Markman ruling in this case. [Docs. 127 and 139]

FN6: Chrimar asserts that the elements of claim 14 are so different from those of claim 1, that the findings in *Cisco* are "irrelevant" to deciding on the validity of claim 14. [Doc. 233 at 6] As a consequence of this assertion Chrimar is, in effect, arguing that collateral estoppel, as it relates to the teachings of the Green Book, does not apply to the instant case. This assertion directly contradict this Court's collateral estoppel order. [Docs. 127 and 139]

FN7: Chrimar misinterprets cited case law for the need to consider the teachings of prior art in its entirety when considering issues of obviousness. The cited case law does not require that every element of the prior art appear as an element in the anticipated invention, but it does require that no element of the prior art *teach away* from the anticipated invention. See paragraphs ¶25-¶28 below.

## II. Legal Standard for Summary Judgment

¶14. Summary judgment is appropriate when the pleadings and other case material demonstrate that there are no genuine issues of material facts, and the moving party is

entitled to judgment as a matter of law. U.S. Supreme Court in *Poller v. Columbia Broadcasting Systems, Inc.*, 368 U.S. 464, 467 (1962) See also Fed. R. Civ. P. 56 (c).

When a defendant in a patent infringement action moves for summary judgment of invalidity, the defendant has the burden of establishing invalidity by clear and convincing evidence so that no reasonable jury could find otherwise.<sup>FN8</sup> Furthermore the evidence submitted to the court must be viewed in the light most favorable to the opposing party. *Eli Lilly & Co. v. Barr Laboratories, Inc.*, 251 F. 3d 955, 962 (Fed. Cir, 2001) The Court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000) If a trial could result in the jury (or judge in bench trial) deciding in favor of the party opposing the motion, then summary judgment is inappropriate. Deciding on the relative credibility of witnesses is a question for trial. *Goldman v. Standard Ins. Co.*, 341 F .3d 1023, 1036 (9th Cir. 2003) – denying summary judgment because determination of “who is correct in this battle of experts is not for [the Court] to decide”

FN8: According to Rule 56 Subdivision (c)(3) of the Federal Rules of Civil Procedure, the court may decide a motion for summary judgment without undertaking an independent search of the record. Nonetheless, the rule also recognizes that a court *may* consider record material not called to its attention by the parties.

¶15. Once the moving party meets its initial burden, the non-movant must demonstrate sufficient evidence of material factual dispute such that judgment should not be entered as a matter of law. *See, generally, Constant v. Advanced Micro Device, Inc.*, 848 F .2d 1560 (Fed. Cir. 1988) (describing burden of proof) Purported evidence that consists only of argument and unsupported conclusory statements, rather than factual evidence, is insufficient to raise a genuine issue of material fact to defeat a motion of summary judgment. *Id.* at 1572; *see also Union Carbide Corp. v. American Can co.*, 724 F .2d 1567, 1572 (Fed. Cir. 1984). To defeat a motion for summary judgment, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita*, 475 U.S. at 586. However, the “mere existence of some alleged factual dispute between the parties will not defeat and otherwise properly supported motion for summary judgment;” and a factual dispute is genuine only where “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.* 477 U.S. 242, 247-48 (1986)

¶16. Rule 56 Subdivision (e)(1) of the Federal Rules of Civil Procedure also recognizes that the court may afford the litigants an opportunity to properly support or address the facts. In particular, “If a party fails to properly support an assertion of fact or fails to properly address another party’s assertion of fact as required by Rule 56(c), the court may give an opportunity to properly support or address the fact.” In the instant case, the Court has been quite liberal in applying the above rule. Each party has been given ample opportunity to present their case and rebut that of their opponent’s. The Court has held

both a regular hearing and an evidentiary hearing on the merits of the summary judgment motion before it.

### III. Legal Standard for Patent Validity

¶17. According to the Patent Act, 35 U.S.C. a patent claim can be invalid for a number of reasons, including (1) anticipation by prior art, i.e., “the invention was known or used by others in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent” [35 U.S.C. § 102(a)] or (2) obviousness, i.e., “the difference between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” [35 U.S.C. § 103].

#### Obviousness

¶18. In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 86 S. Ct. 684, 15 L.Ed.2d 545 (1966), the Supreme Court set out a framework for applying the statutory language of 35 U.S.C. § 103. “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 86 S. Ct. 684 at 17-18

¶19. “The ultimate judgment of obviousness is a legal determination (based on the underlying facts). *Graham*, 383 U.S., at 17, 86 S. Ct. 684 Where, as here, the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors, summary judgment is appropriate.” *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727 (2007).

¶20. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727 (2007).

¶21. “...,if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida and Anderson’s-Black Rock* are illustrative – a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.” *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727 (2007).

¶22. “The question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art. Under the

correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727 (2007).

¶24. “As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court to take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727 (2007).

#### Non-Obvious Because Prior Art Teaches Away

¶25. “The Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious. 383 U.S. 39, at 51-52, 86 S.Ct. 708 The fact that the elements worked together in an unexpected and fruitful manner supported the conclusions that Adam’s design was not obvious to those skilled in the art.” *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727 (2007)

¶26. “in general, a reference will teach away if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.” *In Re Francis S. Gurley*, 27 F.3d 551

¶27. A prior art reference must be considered in its entirety, i.e., including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir 1983), cert. denied, 469 U.S. 851 (1984)

¶28. “In the consideration of the prior art, however, the district court erred ... in considering the references in less than their entireties, i.e., disregarding disclosures in the references that diverge from and teach away from the invention at hand.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir 1983), cert. denied, 469 U.S. 851 (1984).

#### **IV. Foundry’s Arguments in Support of It’s Summary Judgment Motion for Invalidity of Claims 14 and 17 of the ‘260 Patent**

Foundry makes the following arguments in support of invalidity of claim 14 of the ‘260 patent by anticipation (35 U.S.C. § 102), and claim 17 of the ‘260 patent by either anticipation or obviousness (35 U.S.C. § 103). Below each argument, I provide an analysis and my expert finding.

##### Claim 14 – Invalidity by Anticipation (35 U.S.C. § 102)

¶29. Claim 14 is a method claim with corresponding structure residing in claim 1. Claim 1 has been found to be invalid in *Cisco*. Chrimar has been collaterally estopped from relitigating the validity of claim 1, and hence claim 14 must be invalid (see *Honolulu Oil Corp. et al. v. Halliburton et al.*, 306 U.S. 550, 668 (1939)). [Doc. 205 at 3]

**Expert Finding:** It is clear from intrinsic evidence that claim 14 of the ‘260 patent is essentially a method claim corresponding to the means-plus-function claim 1 of the ‘260 patent. Since claim 1 is anticipated by the FDDI Publications, Foundry cites *Honolulu Oil Corp. et al. v. Halliburton et al.*, 306 U.S. 550, 668 (1939) to argue that claim 14 is also invalid. In *Honolulu*, the Supreme Court held that where an apparatus claim is found anticipated by the prior art, and “the elements to be employed in taking the steps constituting the [claimed] method [of the asserted patent] are essentially the same as those constituting the apparatus,” and “the *result to be achieved by the method* claimed to be new *is precisely the same* as that for the attainment of which the apparatus found to be old was contrived,” the method claim is also invalid. Foundry, however, cannot directly invoke *Honolulu* for the instant case, since claim 1 of the ‘260 patent is a means-plus-function claim, as opposed to an apparatus claim. Furthermore, even if *Honolulu* applies to the instant case, Foundry must still demonstrate that every element of method claim 14 can be found in a corresponding element of claim 1.

- ¶30. All of the claim elements in claim 14 also appear in claim 1 with the exception of:
- (a) “selecting respective pairs of existing data communication lines for associated pieces of monitored equipment;”
  - (b) continuous current flow [of a low DC current] through each current loop while each of said associated pieces of equipment is physically connected to said network via data communication lines;” and
  - (c) “sensing said DC current signal in each of said current loops so as to detect a change in current flow.”

Foundry states that each of these elements is disclosed in Fig. A-2 of the Green Book, and hence claim 14 is invalid. [Doc. 215 at 1 and 2]

**Expert Finding:** The record clearly supports this conclusion. See K.A. Winick’s draft report and recommendation to the Court, version 3, March 18, 2012, at 50-67 and also see Doc. 210 at 18-22.

- ¶31. The IBM ‘671 patent is prior art that anticipates each and every claim element of claim 14, and thus claim 14 is invalid. [Doc. 143 at 17-19]

**Expert Finding:** I do not address the question as to whether the IBM ‘671 patent anticipates claim 14 ‘260 patent, since I find it unnecessary to do so. I am able to find patent 14 invalid by anticipation of the FDDI publications alone.

#### Claim 17 – Invalidity by Anticipation (35 U.S.C. § 102)

- ¶32. Claim 17 is a dependent claim of claim 14, which includes only one additional element, namely the use of 10BaseT wiring. [‘260 Patent]

**Expert Finding:** This statement is true.

¶33. IBM Type 1 and Type 2 wiring is 10BaseT wiring, and hence 10BaseT wiring is already disclosed in the Green Book. Thus the Green Book anticipates claim 17, making claim 17 invalid. [Doc. 143 at 15]

**Expert Finding:** This statement is false. Foundry is incorrect in asserting that IBM Type 1 and Type 2 wiring meets the definition of 10BaseT wiring. 10BaseT wiring is defined by the 10BaseT Ethernet standard, IEEE 802.3i. [Doc. 69 at 7] The IEEE 802.3i standard specifies that 10BaseT wiring must have a characteristic impedance of 100  $\Omega$ . IBM Type 1 and Type 2 wiring, however, has a characteristic impedance of 150  $\Omega$ , and thus cannot be 10BaseT wiring.

Claim 17 – Invalidity by Obviousness (35 U.S.C. § 103)

¶34. IBM Type 1 and Type 2 wiring can be converted into 10BaseT wiring using an impedance matching cable adapter that was available at the time the ‘260 patent was filed. Thus it would have been obvious to one of ordinary skill in the art to combine this adapter with the Green Book, rendering claim 17 invalid. [Doc. 219-1 at 10]

**Expert Finding:** The impedance matching cable adapter that Foundry is referring to is the Model 822 10BASE-T to Type 1 adapter. See paragraph 251 of Steven Carlson’s Expert Report of Steven Carlson (October 23, 2009). This impedance adapter will not pass a DC signal, and hence its use would make the cable detect circuit shown in Fig. A-2 of the Green Book inoperable. In advance of the May 4, 2012 evidentiary hearing, Foundry did submit a written statement of its expert witness, Steven Carlson, which discloses cable impedance matching adapters (i.e., AMP 100BASE-T part numbers 558420-1 and 558421-1) that will pass a DC current. [Doc. 226 at 13] Thus the use of this adapter would not make the cable detect circuit shown in Fig. A-2 of the Green Book inoperable. I have performed an independent investigation, however, and it appears that these two adapters (i.e., AMP 100BASE-T part numbers 558420-1 and 558421-1) were first produced in 1996<sup>FN9</sup>, and Foundry has offered no evidence to indicate that such devices were available at the time the ‘260 patent was filed. Therefore, I find Foundry’s argument unavailing.

FN9: “100BASE-T Impedance Matching Adapters,” Technical Note, Premises Systems, AMP Incorporated, 1998.

¶35. One skilled in the art at the time of the invention would have understood that the cable detect circuitry discussed in the FDDI Publications and depicted, for example, in Fig. A-2 of the Green Book was not limited to use in the FDDI-over-STTP network discussed in the FDDI Publications, but could also be used in *any* wired network in which the data communication lines can conduct DC current, including a network employing 10Base T wiring. [Doc. 229 paragraph 14]

**Expert Finding:** The record clearly indicates that this assertion is true.

## V. Chrimar's Response to Foundry's Motion for Summary Judgment of Invalidity of Claims 14 and 17

### Claim 14

¶36. Each current loop associated with DTE as disclosed in the '260 patent must consist of a single unique pair of data communication lines and cannot share pairs of data communication lines as is shown in Fig. A-2 of the Green Book. Thus the Green Book cannot anticipate claim 14 of the '260 patent. [Doc. 233 at 3 R&C 2] See also [Doc. 194 at 1 and at 14-15].

**Expert Finding:** Claim construction is a matter of law, not one of fact. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). Furthermore, the court itself has the authority to adopt claim constructions not proposed by either party. *Exon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553 (Fed. Cir. 1995). The *Markman* order in the instant case has found that the current loop associated with each DTE can consist of more than one pair of data communication lines. [Doc. 127 at 7-9] Chrimar is also collaterally estopped from making this argument. [Doc. 139-1 Finding 18]. Thus Chrimar's assertion is not true.

¶37. Claim 14 contains many limitations that are different from those of claim 1 of the '260 patent. Thus the fact that the Green Book was found in *Cisco* to anticipate claim 1 is "irrelevant" to Foundry's motion for invalidity of claim 14 based on anticipation by the Green Book and collateral estoppel. [Doc. 233 at 6 R&C 6]

**Expert Finding:** Not true. Chrimar is collaterally estopped from relitigating the teachings (as found in *Cisco*) of the cable detect circuit of Fig. A-2 of the Green Book. [Doc. 139]

¶38. Claim 14 contains elements that are not present in claim 1 and are also not anticipated by the FDDI Publications. [Doc. 214 at 3-5]

**Expert Finding:** Not true. See Report and Recommendation of Expert Advisor to the Court Regarding Foundry Networks, Inc.'s Motions for Summary Judgment of Invalidity, Draft Version 3, Issued 03/18/12, at 50-67. See also Special Master Lemley's report and recommendation to the Court. [Doc. 210 at 18-22]

Chrimar also raises the issue that "Foundry failed to provide any evidence that the [claim 14] limitation of 'achieving continuous current flow' (through an associated current loop while a piece of equipment is physically connected to the network via the data communication lines) is found within the prior art. (Ex. A. p.21) Failure to provide evidence of a claim element precludes a finding of anticipation. *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994)" Chrimar mischaracterizes the Court's ruling. The Court states that "A rejection for

anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art.” *In re Paulsen*, 30 F.3d 1475, lines 9-10 (Fed. Cir. 1994)” It does not state, however, that the moving party must provide such evidence. Furthermore, in the instant case, it is obvious that Fig. A-2 of the Green Book contains the limitation of “achieving continuous current flow.” According to Rule 56 Subdivision (c)(3) of the Federal Rules of Civil Procedure, the court may decide a motion for summary judgment without undertaking an independent search of the record. Nonetheless, the rule also recognizes that a court *may* consider record material not called to its attention by the parties.

¶39. The Green Book must always account for a wrap-back connector. [Doc. 233 at 11 R&C 12]

**Expert Finding:** Not true. Chrimar is collaterally estopped from making this argument. [Doc. 139-1 Finding 31]

¶40. The zero voltage condition measured across the 650  $\Omega$  resistor shown in Fig. A-2 of the Green Book can only be used to detect a broken wire in the data communication cable as opposed to detecting a physical disconnection of the cable from the DTE. [Doc. 233 at 8 R&C 9]

**Expert Finding:** Not true. Chrimar has essentially made this same argument before in *Cisco* and did not prevail. Chrimar is collaterally estopped from making this argument again. [Doc.139-1 Findings 29 and 30]

¶41. “The two technologies, wire fault detection (Green Book) and disconnection monitoring (claim 17), are mutually exclusive. The Green Book teaches token ring wiring that mandates the use of IDC connectors to seal the ring. ... The cable detect function checked for wire faults –a looped back connector and/or broken wires, not a physical disconnection of any piece of equipment from the network. [Doc. 194 at 16]

**Expert Finding:** Not true. Chrimar has essentially made this same argument before in *Cisco* and did not prevail. Chrimar is collaterally estopped from making this argument again. [Doc.139-1 Findings 29-31] See also FN4 above.

¶42. Specifically Chimar contends that there are genuine issues of material fact concerning whether the Green Book discloses the following claim 14 elements: [Doc. 233 at 1]

1. Selecting respective pairs that are used to form an associated current loop (Dkt. 69-2, terms 3, 4, and 10)(Doc. 233, Facts 7, 8, 12).

**Expert Finding:** Not true. It is indisputable that the Green Book in Fig. A-2 discloses (a) multiple current loops for each associated piece of equipment, (b) with each current loop composed of a pair of data communication lines, and (c) these data communication lines are not associated with any other monitored piece

of equipment. Thus the limitation of claim 14 “Selecting respective pairs that are used to form an associated current loop” is disclosed in the Green Book.

2. Supplying a low DC current signal to each current loop so as to achieve continuous current flow through each associated current loop while each associated piece of equipment is *physically* connected to the network via the data communication lines (Doc. 233, Facts 7, 10).

**Expert Finding:** Assuming that the data communication cable does not contain broken wires, it is indisputable that the Green Book discloses continuous current flow through each current loop while each of the associated pieces of equipment is physically connected to the network.<sup>FN10</sup> Chrimar, as in *Cisco*, repeatedly argues that a continuous current flow cannot be established, even when a physical connection is present, if the data communication cable contains broken wires. Although this is true, the ‘260 patent implicitly assumes that the cable wires are not broken, thus Chrimar’s argument (as in *Cisco*) is unavailing. [see paragraph ¶3]. Furthermore, Chrimar is collaterally estopped from relitigating this issue.

3. Automatically detecting the low DC current that has achieved continuous current flow through an associated current loop so as to detect a *discontinuity* in the flow of the DC current signal that is indicative of physical disconnection. (Doc. 69-2, terms 9, 10, and 11) (Doc. 233, Facts 2, 7, 9 11)

**Expert Finding:** Claim 14 contains the phrase “sensing said DC current signal in each of said current loops so as to detect a change in current flow indicative of disconnection of one of said pieces of associated equipment.” In the instant case, the claim 14 term “sensing” was construed to mean “automatic detection,” and thus is consistent with the phrase “detecting a change” appearing in the corresponding language of claim 1. [Doc. 69 at 6] Furthermore the Findings 27 and 29 of *Cisco* clearly indicate that the Green Book discloses automatic detection of disconnection of the data communications cable. [Doc. 139] Finally, as in *Cisco*, Chrimar repeatedly argues that a continuous current flow cannot be established, even when a physical connection is present, if the data communication cable contains broken wires. Although this is true, the ‘260 patent implicitly assumes that the cable wires are not broken, thus Chrimar’s argument (as in *Cisco*) is unavailing. [see paragraph ¶3]. Furthermore, Chrimar is collaterally estopped from relitigating this issue.

FN10: Report and Recommendation of Expert Advisor to the Court Regarding Foundry Networks, Inc.’s Motions for Summary Judgment of Invalidity, Draft Version 3, is dated March 18, 2012, at 62-64.

Claim 17

¶43. 10BaseT wiring was known at the time the Green Book was published, and yet was specifically excluded from the Green Book. [Doc. 233 at 111 R&C 13]

**Expert Finding:** The Green Book specified a particular type of wiring, namely IBM Types 1 and 2, for its suggested inoperable solution. It neither stated nor implied, however, that combining 10BaseT wiring with the circuit shown in Fig. A-2 of the Green Book would make this cable detect circuit inoperable to perform the functions described by claims 14 and 17 of the ‘260 patent.

¶44. One skilled in the art at the time of the invention would have understood that Green Book cannot be modified to incorporate 10BaseT wiring because Green Book precludes the modification and the modification renders the Green Book inoperative. [Doc. 233 at 12 R&C 14]

**Expert Finding:** In considering an anticipatory reference, one must consider its teachings. As found in *Cisco*, one of the Green Book’s teachings is the cable detect circuit shown in Fig. A-2 of the Green Book. Nothing stated or implied in the Green Book suggests that this cable connect circuit (Fig. A-2) cannot be used together with 10BaseT wiring to perform the functions described by claims 14 and 17 of the ‘260 patent. See also Finding 32 in the Court’s collateral estoppel order [Doc. 139-1 at 16-17] which reads “Reducing the Green Book to practice and then substituting it for part of the ‘260 patent preferred embodiment to see if the circuit still ‘works’ is not an appropriate analysis for anticipation. *Id.* anticipation must be determined by comparing the anticipatory reference to the language of the claim as interpreted by the Court. *Id.*”

¶45. Use of the cable impedance adapter (suggested by Foundry) to convert Type 1 and Type 2 wiring into 10BaseT wiring will make the cable detect circuit shown in Fig. A-2 of the Green Book inoperable. [Doc. 213 at 2 and 3]

**Expert Finding:** True. See paragraph ¶34 above.

¶46. Foundry’s new “Statement” regarding obviousness is a departure from the basis for the current Motion and is predicated on the false premise that obviousness is determined by picking an element from the prior art and substituting it into a preferred embodiment shown in the patent sought to be invalidated. This is wrong from a legal standpoint. [Doc. 233 at 12 R&C 14]

**Expert Finding:** Chrimar objects “that it is a false premise that obviousness is determined by picking an element [Fig. A-2] from the prior art [Green Book] and substituting it into a preferred embodiment shown in the patent [‘260] sought to be invalidated.” [Doc. 233 at 12] To support its position, Chrimar argues that “Foundry wrongly asks this Court to ignore binding precedent that the prior art be viewed as a whole in considering obviousness. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.* 721 F.2d 1540, 1550 (Fed. Cir. 1983). Foundry urges the Court to

consider only a portion of the prior art references and not the ‘system implemented as a whole.’ This is [an] error.” [Doc. 216 at 1].

Chrimar’s contention, however, mischaracterize the applicable law. In *Gore*, the court states that “In the consideration of prior art, however, the district court erred . . . in considering the references in less than their entirety, i.e., disregarding disclosures in the references that diverge from and teach away from the invention at hand.” *W.L. Gore & Assoc., Inc. v. Garlock, Inc.* 721 F.2d 1540, 1550 (Fed. Cir. 1983). In *Gore*, the court is addressing the issue that exists when parts of the prior art *teach away* from the invention. “in general, a reference will teach away if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.” *In Re Francis S. Gurley*, 27 F.3d 551. No portion of the Green Book teaches away from combining 10BaseT wiring with the cable detect circuit shown in Fig. A-2 of the Green Book to realize the elements of claims 14 and 17 of the ‘260 patent. Combining 10BaseT wiring, or any wiring for that matter, with the cable detect circuit shown in Fig. A-2 of the Green Book does not make this cable detect circuit inoperable, nor does it change its mode of operation.

¶47. Specifically Chrimar contends that there are genuine issues of material fact concerning whether the Green Book can be modified to include 10BaseT wiring where the proposed modification renders Green Book inoperative (Doc. 233, Facts 3, 13, 14): [Doc. 233 at 2]

**Expert Finding:** Not true. It is indisputable that the Green Book proposes an inoperable solution for FDDI over copper wiring that assumes IBM Type 1 and Type 2 wiring, which differs from 10Base wiring. In considering an anticipatory reference, however, one must consider its *teachings*. As found in *Cisco*, one of the Green Book’s teachings is the cable detect circuit shown in Fig. A-2 of the Green Book. Nothing stated or implied in the Green Book suggests that this cable connect circuit (Fig. A-2) cannot be used together with 10BaseT wiring to perform the functions described by claims 14 and 17 of the ‘260 patent. Furthermore nothing in the Green Book teaches away from such a combination. See also Finding 32 in the Court’s collateral estoppel order [Doc. 139-1 at 16-17] which reads “Reducing the Green Book to practice and then substituting it for part of the ‘260 patent preferred embodiment to see if the circuit still ‘works’ is not an appropriate analysis for anticipation. *Id.* anticipation must be determined by comparing the anticipatory reference to the language of the claim as interpreted by the Court. *Id.*”

## VI. Summary

¶48. There are no genuine issues of material fact in dispute in this case that would preclude the Court from granting a motion of summary judgment as a matter of law.

¶49. Method claim 14 of the '260 patent is invalid under 35 U.S.C. § 102, since each and everyone of its elements is anticipated by the prior art disclosed in the Green Book, and in particular, by the cable detect circuit shown in Fig. A-2 of this prior art. This conclusion follows directly from the *Cisco* decision, where the teachings of the cable detect circuit shown in Fig. A-2 of the Green Book were established. Furthermore, Chrimar is collaterally estopped from relitigating the meaning of these teachings.

¶50. Claim 17 is a dependent claim of claim 14 of the '260 patent. The only element in claim 17 that is not an element of claim 14 is the use of 10BaseT wiring. 10BaseT wiring was well known and widely used at the time the '260 patent was filed.

¶51. Combining 10BaseT wiring with the cable detect circuit shown in Fig. A-2 of the Green Book, does not make the cable detect circuit inoperable, nor does it change its manner of operation. In addition, the Green Book when considered in its entirety does not teach away from such a combination.

¶52. The content of the prior art (i.e., the teachings of Fig. A-2 Green Book), the scope of the patent claim (claim 17), and the level of ordinary skill in the art are not in material dispute and the obviousness of the claim (claim 17) is apparent in light of these factors. In fact, the combination of 10BaseT wiring with the cable detect circuit shown in Fig. A-2 of the Green Book yields no more than a predictable result.

¶53. The widespread use of 10BaseT wiring at the time the '260 patent was filed would be a strong motivation for one skilled in the art to combine this wiring with the cable detect circuit shown in Fig. A-2 of the Green Book.

¶54. Hence claim 17 of the '260 patent is invalid for obviousness under 35 U.S.C. § 103

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Respectively submitted

s/Kim A. Winick

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